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F. N. BLAKE, EDITOR OF THIS NUMBER.

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PHONETIC TEACHING.

RARELY has any subject attracted the attention of teachers so much as the new method of imparting the elements of education, which has been presented to the public and at Teachers' Associations during the past year. All must be somewhat familiar, either by personal observation or the testimony of others, with the results which have been secured by the most prominent system of orthographic reform, to which reference is made.

The first question that naturally suggests itself to the inquiring mind, on the presentation of a topic claimed to be of value, is, "Does it deserve investigation?" If not, waste no time upon it. But if the results secured be worthy of investigation, let the examination be thorough and impartial.

That children have been taught to read the common print, and spell according to the common orthography, who have been primarily taught by means of the Phonetic system, no one conversant with the facts can doubt. And if there be any not thus conversant, they can readily satisfy themselves, that something at least has been achieved beyond ordinary results, by making an attempt to secure the reward of \$500, which has been offered to any one who can discover children of the same age with the Phonetic children, and who can read and spell in the common orthography better than they do.

In what, then, does the peculiarity of the Phonetic system consist? And why can such results in the primary departments of education, by means of it, be secured?

We are fortunately enabled, for the first time in the *Teacher*,

to present our readers with Pitman's Phonotypic letters, which have been used in securing these results.

PHONETIC ALPHABET.

[Each letter has the power, or sound, of the *italicized* letters in the illustrative words.]

Letters.	Illustrative words.	Letters.	Illustrative words.
<i>Long Vowels.</i>		<i>Explodents.</i>	
Æ æ	eel	P p	pole
Ɔ a	ale	B b	bowl
Ɔ q	arm	T t	toe
Ɔ e	all	D d	doe
Ɔ o	oak	Ɔ c	cheer
W u	ooze	J j	jeer
<i>Short Vowels.</i>		C c	came
I i	ill	G g	game
E e	ell	<i>Continuants.</i>	
A a	am	F f	fear
O o	olive	V v	veer
U u	up	I t	thigh
W u	wood	Ɔ d	thy
<i>Diphthongs.</i>		S s	seal
Ɔ i	ice	Z z	zeal
Ɔ o	oil	Σ f	shun
Ɔ s	owl	K z	vision
U u	use	<i>Liquids.</i>	
<i>Coalescents.</i>		R r	rare
Y y	yea	L l	lull
W w	way	<i>Nasals.</i>	
<i>Breathing.</i>		M m	mum
H h	hay	N n	nun
		W ŋ	sing

It will be seen that the alphabet consists of forty letters. It is based upon the principle of each letter invariably representing each sound of the language. Three of the twenty-six letters of the old alphabet, *k*, *q*, and *x*, are appropriately represented by *c* and *s*; the last, however, sometimes requires *g* and *z*. Seventeen new letters are added for sounds generally represented by several letters in combination. If it be an advantage to have a less number of letters than there are sounds in the language, the alphabet might be, with equal propriety, reduced to twelve letters. The number of combinations would have to be increased in a much greater proportion, and where the child would gain in the facility of acquiring the letters, he would lose much more in the increased difficulty of learning the language.

The Chinese written language contains no letters at all, but is made up of either combinations or syllables, each one of which is intended to represent an idea and not a sound. Hence the extreme labor with which it is acquired. The man who becomes able to write a thousand words is considered learned.

In English orthography, there are twenty-six letters. But

this number is very deceptive, as has been shown by Alexander John Ellis. The sound of E, for instance, is represented by *æ* in *minutiæ*; *ai* in *demain*; *e* in *be*; *ea* in *each*; *ee* in *feet*; *ei* in *conceit*; *eig* in *seignior*; *eip* in *receipt*; *eo* in *people*; *ey* in *key*; *eye* in *keyed*; *hæ* in *diarrhœa*; *i* in *invalid*; *ie* in *grief*; *æ* in *fœtus*; *uay* in *quay*; *ui* in *mosquito*, &c. &c.; in all, forty different ways of exhibiting the pronunciation of this single sound.

There are no less than 624 methods of representing the forty simple sounds of the language, while muteness itself has 34 mutations, making in all 658 representatives, or precisely the same number that represent the English people in the British House of Commons.

But if several sounds in *combination* be taken, they may be represented in many million ways, and authorized by other words in the English Language. Eight sounds only may thus be represented in fifty million different ways.

This language, thus difficult to be attained, must be taught to the children of the rising generation. And the problem for us to solve is, How can the acquisition most readily be secured? Suppose the Greek language is to be learned. You do not commence with Thucydides. But first taking the Greek Grammar and Reader, by easy stages you become able to understand the Historian's more difficult work. And all feel that it is no objection to this gradual process to say that, in order to attain the knowledge of the language, you are obliged to perform the double labor of translating the Greek Reader and Thucydides also, when the end might have been attained by toil only upon the latter work.

So taking it for granted that these 658 combinations to represent the simple sounds of the English language must be learned by the child, is it not the quicker way for him to traverse an easy path even though he apparently goes over more ground, than to be put at once to the difficult task of learning these variations in the representation of sounds before he can understand their purpose or value?

Practically it has been found that, by means of the Phonetic alphabet, the child or the ignorant adult is enabled to learn to read the Phonetic print in a remarkably brief space of time. The resemblance of that is so strong to the Romanic or common print, that no difficulty is then experienced in the acquisition of the latter, while the habit of analysis which the Phonetic system imparts is found to exert a most wonderful influence in initiating the child into the mysteries of the English orthography.

In the following columns, a specimen of the Phonetic print will be seen in contrast with the orthography of Dr. Wilson, who wrote as recently as the year 1553, and who was described

by Dr. Johnson as "a man celebrated for the politeness of his style and the extent of his knowledge."

"Pronunciation is an apte ordering bothe of the voyce, countenance, and all the whole bodye, accordynge to the worthines of suche woordes and mater as by speache are declared. The vse hereof is suche for anye one that liketh to haue prayse for tellynge his tale in open assemblie, that hauing a good tongue, and a comelye countenance, he shal be thought to passe all other that have not the like vtterance: thoughte they have much better learning. The tongue geueth a certayne grace to euerye matter, and beautifieth the cause in like maner, as a swete soundynge lute muche setteth forthe a meane deuised ballade."

Pronunsiafun iz an apt ordering bot ov de vos, esntenans, and ol de hol bodi, acording tu de wurdines ov sug wurdz and mater az bi speg qr declard. De yus herov iz sug for eni wun dat ljet tu hav praz for telin hiz tal in open asembli, dat, havin a gud tun, and a cumli esntenans, he sal be tot tu pas ol uder dat hav not de lje uterans, do da hav mug beter lernig.

De tun givet a sertin gras tu everi mater, and butifjet de coz in lje maner, az a swet-syndig ljt mug setet fort a men-devjz balad.

In making this selection we did not go back into the 14th century and copy the writings of Chaucer, Wickliffe, or Gower, but the above was written less than three centuries since.

It is said that the Phonetic system will cause obscurity where now a distinction in spelling exists without a difference of pronunciation; as in the following sentence: Does a wheel-wright do right if he write upon a ceremonial rite? Let Dr. Franklin answer this objection in his own language. "*That distinction is already destroyed in pronouncing the words*; and we rely on the sense alone of the sentence to ascertain which of the several words, similar in sound, we intend. If this be sufficient in the rapidity of discourse, it will be much more so in written sentences, which may be read leisurely, and attended to more particularly, in case of difficulty, than we can attend to a past sentence, while the speaker is hurrying us along with new ones."

But the more conclusive answer to this objection will be found in the fact that Phonetic print will furnish to the child a distinction in several hundred cases where it is afforded by the signification and pronunciation, but where the Romanic spelling fails to furnish it. Such instances will be found in the words *bow*, (an instrument, and to incline); *conjure*, (play magical tricks, and entreat); *courtesy*, (civility, and a lady's motion); *close*; *does*; *eat*; *gill*; *house*; *Job*; *lead*; *live*; *lower*; *mow*; *read*; *Reading*; *row*; *sewer*; *slough*; *sow*; *ton*; *use*; *wind*;

wound. In addition to this, the Phonetic print, first used, will have a tendency to fix in the mind of a child accurate pronunciation in those numerous instances where provincialisms would naturally mislead the teacher, or where a want of familiarity with the proper pronunciation may have formed erroneous habits.

The most frequent objection to the use of Phonetic print, is, that it will have a tendency to destroy the etymologies of the language. Dr. Franklin thus disposes of this. "Etymologies are at present very uncertain, but such as they are, the old books would still preserve them, and etymologists would there find them. Words, in the course of time, change their meanings, as well as their spellings and pronunciations, and we do not look to etymology for their present meanings. If I should call a man a Knave and a Villain, he would hardly be satisfied at my telling him that one of the words originally signified only a lad or servant, and the other an under ploughman or the inhabitant of a village."

Mr. Ellis observes, "If this objection be made to any of our readers, let them ask the objector to explain on etymological grounds, *h* in *rhyme*, (which is not from the Greek) *ph* in *nephew*, *r* in *groom*, *h* in *ghost*, *g* or *h* in *light*, *f* in *dwarf*, *c* in *scent*, *s* in *aisle* and *island*, *ce* in *dunce*, and to explain the pairs, *bow bough*, *indict indite*, *proceed precede*, *connection connexion*, *particle animalcule*, &c., &c."

The very fact that the Phonetic alphabet is not yet perfected, will serve to render it only a transition alphabet, for the purpose of learning the Romanic alphabet. And as such, the etymological objection is of no weight, inasmuch as the former is simply the means used to become better acquainted with the etymologies of the language. But even were the objection persisted in, it has been found, on a careful examination of the facts, that the Phonetic alphabet, instead of destroying analogies and etymologies, will serve to revive many that have long been obscured by that strange lawgiver, custom. George B. Emerson, Esq., in his report to the American Academy of Arts and Sciences, says that by means of the new system, "a multitude of derivations will reappear, which had been long buried out of sight under the barbarous and fantastic ruins of exploded heterographical spellings." Archdeacon Hare even admits that "the common pronunciation of a word frequently agrees better than its spelling with its etymology and analogy."

Some of the children of the Boston Phonetic School have been exhibited to the public about sixty times. We cannot close this brief view of the subject better than by presenting in the new

type the following letter from the Hon. Horace Mann, who listened to one of the earlier exhibitions:—

West Nyton, July 2, 1851.

Der Ser, — Havin witnest de ecsersizez ov a clqs ov njn cildren under yur ear [da qr under de *instrucsun* ov Mis Lotrop] in redin Fonografi and Fonotopi, it givz me plezur tu asur yu ov de deljt hwiç dar performansez gav me. I tije de Njn Muzez wer never lisend tu bi a mör gratifjd ödiens.

De Ingliſ langwaj iz so anomalus and self-contradictori, dat sum ov de gratest and best mjndz hav sot for a metod ov lesenin de difi-cultiz ov acwijn it. We cel it improperli de *Ingliſ langwaj*, az do dar woz but wun. On openin a dieſunari, everibodi wil se dat dar qr tu Ingliſ langwajez, — wun for specin, de uder for rjtin and printin; and I belev de masteri ov dez tu be mör difficult for cildren dan dat ov tu langwajez hölli distinct and separat from eg uder, or havin no wurd in comon. De gjld iz tet tu giv a partienlar sünd tu a leter; and, hwen he sez de sam leter agen, he iz tet tu giv it *anuder* sünd; and stil *anuder* and *anuder*, meni timz över. Intelectyuali considerd, dis must prezent tu de lerner a considerabl ecstent ov caos; and, in moralz, it iz az ner lje ljin az eni tin can be, and escap it.

Fonografi and Fonotopi propoz tu obviat dez veri serius difficultiz, bi yuzin az meni distinct sinz az dar qr distinct sündz in de langwaj, so dat no leter or carактер ſal ever imitat de röç'z devjs bi çanjin its nam.

I hav lon belevd dat so dezirabl an açevment wud be realizd. Mi onli dät haz bin hweder yu hav obtand de best sistem ov carактерz. And her I du not denj, but onli rezerv mi opinyun. De cildren yu egzibited had sertinli mad most wonderful profifensi, and wer, in severäl ov de esenfals ov gud enunsiaſun and redin, yerz in advqns ov most cildren hu hav bin tet in de old wa.

Yurz veri trauli,

HORAS MAN.

Dr. Jamz W. Ston.

The map of France, which was begun in 1817, is not yet finished. It is to contain two hundred and fifty-eight sheets, of which one hundred and forty-nine are already published. There yet remain five years' work in surveying, and nine years' work in engraving, to be done. The total cost will exceed £400,000 sterling. Up to this time 2,249 staff officers have been employed in the work.

MR. EDITOR:—The last communication of Seekonk Seminary affords abundant evidence that my questions on his "new method of proving multiplication," accomplished their avowed object of furnishing others with "food for thought." It was not my intention to trouble your readers again with this subject, but finding that my silence is liable to be misconstrued, I must again come before them.

Both the old and the "new" method depend on the principle that any number is equivalent to some multiple of 9 plus the sum of its digit figures. In applying this principle by the old method, we add together the digit figures of the multiplicand, then those of the multiplier, and then those of the product. By the new method, we *do the same*.

By the old method, we find the excess of each of these sums over a multiple of 9. By the new method, we *do the same*.

By the old method, we multiply the excess thus obtained from the multiplicand, by the corresponding excess of the multiplier, and find the excess of the product. By the new method, we *do the same*.

By the old method, the excess of the last product should equal the excess of the product of the original multiplication. By the new method, it should equal *the same excess*.

The *only* difference of *any kind* between the two methods, is that by the new method, we apply the principle that a number is equal to a multiple of 9 plus the sum of its digits, to the sum of the digits of the number, while by the old, we only apply it to the number. This gives one or more additions in place of a division. Thus, suppose 58 to be the sum of the digits of a number. Then, by the old method, we have 9 is contained 6 times in 58, with a remainder of 4; but by the new we have 5 plus 8 equal 13, 1 plus 3 equal 4, or the excess over a multiple of 9. Truly the new method is no less wonderful for its *simpli-city* than for its *originality*.

The errors of expression which have been alluded to, are none the less errors for being caused by mistakes in copying, and they would, if habitual, produce effects as injurious as any other class of errors. Nearly half of the mistakes which our pupils make in their mathematical studies are caused by carelessness in copying or writing; but shall they be neglected on that account? While nothing short of absolute accuracy in mathematical expressions should satisfy teacher or scholar, accidental errors should be carefully distinguished from habitual ones, and should be regarded with far greater lenity. If, for instance, a person wishing to make four mathematical statements of precisely the same character, uses one false form and three

true ones, we might regard the mistake as merely accidental; but if he uses *four false forms* and *no true one*, we should be likely to regard it as the result of ignorance, or habitual carelessness. In cases like the latter, we may well repeat the questions asked in the July number of the Teacher. D. P. C.

[We copy the following admirable suggestions on the manner of conducting recitations from the Report of Mr. Dyer H. Sanborn, Commissioner of Common Schools for Sullivan County, New Hampshire.]

SUGGESTIONS AS TO THE MANNER OF CONDUCTING RECITATIONS.

ON the right manner of conducting recitations, depends the future usefulness of the scholar. His ability and capacity successfully to discharge the duties of life, and to meet its responsibilities, result from a judicious development of his faculties, a proper early training, and actual discipline of the mind.

The prime object to be secured in conducting recitations, is the greatest possible permanent improvement of the student. To accomplish this object, the teacher must secure the interest, and gain the confidence of his pupils. Thus his instructions will be rendered useful, and his labors profitable. Confidence is gained by exercising a spirit of kindness. Scholars should be faithful in preparing their lessons for recitations, and fix their minds intently on the instructions of their teacher. If they respect him, they will value the instruction he imparts. A proper digestion of the materials of study, if furnished with suitable mental aliment, promotes vigorous intellectual growth. If a judicious direction is given to the course and manner of study, the student, when put on the track, will pursue his onward journey with pleasure, profit and delight. Every opportunity and circumstance should be improved to inspire a scholar with confidence in his ability to do what he undertakes to do. The teacher should express his thoughts in language adapted to the capacity of the scholar. If he would be intelligent, his language should be intelligible. He should be able to perceive, almost by intuition, whether his questions or explanations are clearly comprehended by the learner. If he finds that they are not, he should vary his manner of expression, and present the same idea in different aspects, until it is fully understood. He must find access to the mind of a child, that he may be able to ascertain what *he already knows*. This pre-supposes on his part, an acquaintance with the principles of mental philosophy.

The instructors of youth should aim to call the thinking

powers into exercise, teach them to observe, to discriminate, to compare, to investigate, to reason, and to judge, that they may be able to concentrate their thoughts, and express their ideas in chaste and appropriate language. Teach a person *how* to think, and he will soon find out *what* to think. Let him be made to *set out right*, and then be so directed that he will form correct intellectual habits. The foundation will thus be laid for him to discharge his own duty towards educating himself; and he will go on increasing in knowledge and intelligence.

The teacher should frequently discourse on the benefits which will be derived by the learner from the studies he is pursuing, informing him that it will strengthen and invigorate his mind, augment his capacity for business, and mature and qualify him for greater usefulness. Scholars, where practicable, should recite in classes. The teacher should be familiar in his intercourse with his pupils, yet dignified—show by the kindness and benignity of his mien, that he is sincerely their friend,—should take scholars by surprise, put thought on the wing. He should be ever vigilant

“ To aid the mind's development, to watch
The dawn of little thoughts, to see and aid
Almost the very growth.”

If there are difficulties in the lesson that have not been learned, or studied, these should be previously explained. Words above the capacity of the student should be defined in a manner that will call the judgment into exercise. The capacity of mental comprehension is increased by use. A direct telling a scholar a rule or reason for a scientific operation without thought on his part, is oftentimes an injury, especially to him who has hardly entered the vestibule of the temple of wisdom. Many would willingly quaff exhilarating draughts from the deep wells of knowledge, were it not for the labor of drawing the water. Within the memory of many of us, the more advanced scholars of a school have done incalculable injury to their fellow students, and impeded greatly their mental improvement by working their problems for them in arithmetic without explanation, or by allowing them to copy them from their manuscripts, when they knew nothing of their process.

To illustrate—suppose a scholar were parsing a succession of words etymologically, such as *now*, *how*, *high*, *is*, *parents*, or *month*; should he miscall a word, I would not tell him directly, but would refer him to the appropriate rule laid down in his text book, to give him the requisite information. To explain the proposed method more clearly, a few rules are subjoined and numbered. 12. A noun is the name of any person, place,

or thing, that exists. 38. Any word that will make good sense by placing it before a noun, is an adjective. 51. Any word that will make good sense by placing *I, thou, he, it, or they* before it, is a verb. Suppose a scholar should call *is* a noun, I would refer him to 51. After reading it, he will at once see his error, and correct it by calling *is* a verb. I would then ask, Why a verb? Note 51 contains the answer. Should he call *useful* a verb, I would refer him to 38; he would then say, *useful* is an adjective. Why an adjective? Because it will make good sense to place it before some noun. You can say a *useful man*. Should he call *high* a noun, refer him to 12. He would say it is not a noun. Why not a noun? Because it is not the *name* of any thing. The *why* and *wherefore* should never be omitted, when it is apparent that the lesson is not understood by the scholar. There should frequently be a succession of questions to lead the scholar to the final answer. Scholars with proper restrictions, should be encouraged to correct each others' error. This will keep up an interest in the recitation, and serve to secure the attention of the wayward and indifferent. Every school and every class has an atmosphere peculiarly its own. The teacher should labor to regulate this atmosphere, so that it shall be considered by the members of the several classes, highly honorable and reputable to get a thorough knowledge of the studies to which they are devoting their attention. A great object will then be attained towards laying the foundation of this mental archetype of the future man. Variety is the spice of the teacher's success. A system should be adopted in every species of recitation, that will secure the faithful preparation of every member of the class; and each scholar should be held responsible for entire preparation on his proposed recitation. The principle that scholars should either *know* or *not know*, cannot be too strongly inculcated.

Never pamper the more easy of apprehension at the expense of those of less active minds. The simultaneous answering of questions put to a class without discrimination, should not be practised, except in review, or when the recitation has nearly closed, where there is not time enough to put the questions to individual scholars in succession. Promptness and expedition should be the teacher's motto. Students should be taught in the incipient stages of instruction, not only *what* to study, but *how* to study.

Visible illustrations are analogous to practical life. Learn *things*, and *then* the *names* of things. Proceed from concretion to abstraction. Every scholar should be taught to use his eyes as he is passing through the world. We acquire definite knowledge by comparison and observation. To a child who has never

seen a river, show him a brook or a rivulet ; inform him that a river is many times larger than a brook, and that rivers are of various sizes. If he has a vague idea of a lake, tell him it is a large pond, and contains many times more space. For the sake of illustration, direct his attention to a small field in the neighborhood, containing say three acres of land. Show him a field that contains six times as many acres. Ask which is the larger of the two. He will answer correctly. Thus he will gain an accurate knowledge of the relative sizes of objects by comparison. His observation will thus become more acute. If you would fix his observation on words, and lead him to notice their comparative difference, write them on the blackboard ; e. g., high, higher, highest ; wise, wiser, wisest ; dry, dryer, driest ; sad, sadder, saddest. What do you add to high to form higher ? Ans., er. To form highest ? Ans., est. What do you add to wise to form wiser and wisest ? Ans., r and st. Why do you add r or st only ? Ans., because the primitive word wise ends with the letter e. What difference is there between the words higher, highest, wiser, and wisest, in forming them from their primitives, high and wise ? Ans., high adds er and est to form higher and highest ; wise adds r and st to form wiser and wisest. Ask similar questions about dry and sad. The teacher should anticipate the prospective difficulties of the scholar ; teach him to demonstrate by analysis the principles on which rules are based. The rule for compound fractions in written arithmetic is, "Multiply the numerators together for a numerator, and the denominators for a new denominator." Propose $1-2$ of $1-3$. Make six marks—| | | | | |—on the blackboard. $6-6$ make a unit ; and $1-6$ is one of six equal parts. One-third of these six marks equals $2-6$. One half of two sixths is one-sixth. Thus the principle on which the rule is based, is clearly elucidated and demonstrated. Many of the rules of synthetic arithmetic may be very easily learned by observing carefully the manner in which the problems are worked on the blackboard. Then let the student express in his own words the whole operation. In this way, he will produce his rule. Many abstruse truths may be learned by similar illustrations. To give one a definite idea of the shape of the earth which he inhabits, show him a globe, and give it a rotary motion. He will then easily comprehend what is meant by the revolution of the earth on its axis. The impressions communicated through the medium of the eye are lasting. I would, therefore, urge upon every teacher the importance of visible illustration in all the departments of teaching. In teaching the English alphabet, put a perfect form of the letter on the blackboard. Let it be imitated by writing, and carefully compared with the same letter printed in books.

"Teach one thing at a time," should be the teacher's maxim; analyze fully one principle before another is presented. Apply knowledge as fast as it is acquired. Convince a scholar of the value of useful knowledge, excite in him a desire to obtain it, furnish him the means of comprehending and unravelling difficulties, and he will soon learn to originate, treasure up, classify, and digest whatever he has acquired.

BARNSTABLE CO. EDUCATIONAL CONVENTION.

THE annual meeting of the Barnstable County Association of Teachers and Friends of Education, was holden in Barnstable, at the Unitarian Church, Nov. 19th and 20th.

Rev. Mr. Bellows called the meeting to order at two o'clock, on Wednesday, when Rev. Mr. Haynes was chosen Secretary *pro tem*. A Committee of Nominations having been called for, Messrs. Brooks, Sargent and Blake were chosen, who subsequently reported the following list of officers for the ensuing year:

President.—H. B. HOOKER, Falmouth.

Vice-Presidents.—Dr. Harpur, Sandwich; Dr. M. Rogers, Falmouth; Rev. J. N. Bellows, Barnstable; Amos Otis, Yarmouth; Dr. A. Swift, Dennis; O. Brooks, Jr., Harwich; A. S. Lyon, Chatham; Jacob White, Orleans; Wm. Leonard, Eastham; Solomon Rich, Wellfleet; J. A. Davis, Truro; Jeremiah Stone, Provincetown.

Secretary.—Rev. D. C. Haynes, Hyannis.

Treasurer.—Frederic Scudder, Hyannis.

Directors.—Sydney Brooks, J. W. Allen, F. N. Blake.

Committee of Arrangements for the present meeting.—S. G. Sargent, F. N. Blake, Edward Hinckley.

The report was accepted, and the above named gentlemen were chosen officers for the ensuing year.

The Institute, in session at the same time and place with the Convention, having adjourned for the time, and come into the meeting of the Convention, an hour was devoted to a lecture from Dr. Stone. The Doctor introduced two little girls from Boston, in illustration of his theme, (Phonography) who read, analyzed and spelled with delightful fluency and propriety, for children of their age. Adjourned to 7 o'clock, P. M., at the same place.

Met agreeably to adjournment. Prayer was offered by Rev. Mr. Sargent, of Barnstable. An address was delivered by Rev. Mr. Hooker, of Falmouth. After the address, the audience

were favored with interesting readings and recitations from Prof. Russell.

Convention adjourned to meet on Wednesday, at 10 o'clock, A. M.

Met according to adjournment, President, Rev. Mr. Hooker, in the Chair. The Committee on Awards for Essays of last year was reappointed. One member having removed from the county, George Marston, Esq., was appointed in his place. It was voted that the essay written for one of the awards be read this evening; and that future essays be disposed of at the Spring meetings. The Convention adjourned to meet in the evening.

Meeting of the Association took place at the close of a lecture before the Institute. Mr. Brooks, of the Committee on Prize Essays, reported that the premium of \$5 had been awarded to Miss Ann J. Page, of Barnstable, for her essay upon the question, "What are the first three objects to be attained by the teacher for the success of his school?" He also moved, that as the evening was advanced, the reading of the essay be omitted.

Voted, That the essay be published in the County papers.

Voted, That the editors of the Barnstable Patriot and the Yarmouth Register be requested to publish the proceedings of the Convention.

Voted, That the thanks of the Association be tendered to the people of Barnstable for the use of the church for the meetings, and for their kindness and hospitality. Adjourned *sine die*.

H. B. HOOKER, *President*.

D. C. HAYNES, *Secretary*.

EDUCATION IN WISCONSIN.

By the enactment of a code of Free Common School Laws, Wisconsin has laid the foundation of a system of public schools designed to secure to all her children the means of elementary instruction. For a State which has so recently become the abode of civilized man, this is a good beginning. But this is not all she has done for education. Already she boasts of her State University, for the endowment of which she has made munificent provision. This institution is located at Madison, the capital of the State, and, though founded but two years since, the number of students in the regular college classes is now between twenty and thirty, while in the Grammar and Normal Schools, many others are preparing for an early admission. The Chancellor of the Board of Regents is Rev. John H. Lathrop, LL. D.

There are Collegiate Institutes at Janesville, Racine, Kenosha, Milwaukee and Appleton. Beloit College, located in the thriving town of Beloit, is principally endowed by donations from New England States, and its friends entertain the hope that, in time, it may become the "Yale" of the West. The number of students at present is about thirty. In the Preparatory and Normal Departments connected with it, there are eighty students.

Thus the foundation of her system has been laid, and her enterprise, we doubt not, will, in due time, rear a superstructure which will increase and secure her prosperity, and raise her to an enviable rank in the scale of intelligence and civilization.

WRITTEN EXERCISES.

THE constant use of the pen in education, cannot be too strongly urged. It would be well for scholars to write some exercise every day. But we are met with the objection, that it would be impossible for a teacher to correct so many exercises as would be thus thrown upon his hands. A little ingenuity will surmount this obstacle. Pupils may be selected to do the work, or, at least, a great portion of it. This will be a great advantage to those who make the corrections. Besides, the corrections made in this way will be more likely to be scrutinized by the writers of the exercises, than if made by the teacher. Another method of abridging the labor of correcting exercises, is to select a few, and read and criticise them in presence of the whole class.

The following exercise we have found very useful:—Before the school is dismissed in the afternoon, eight or ten words, generally selected from the text-books used in school, are dictated to the class. These words are written by the class on slips of paper. In the morning they are required to hand in these words on a half sheet of paper, with their definitions and a sentence containing each word.

The following is an illustration of this exercise. It was written by a boy twelve years of age. We give it precisely as written, *without any corrections*. This is about the twentieth exercise of the kind which the boy had written. The pupils are required to state important facts in their sentences.

It will be seen that this exercise combines practice in *spelling*, *defining*, *penmanship*, *grammar*, and *composition*, besides tending to fix a knowledge of important facts, by putting them in writing.

EXERCISE.

WORDS.

DEFINITIONS.

- | | | |
|----|---------------|------------------------------------|
| 1. | Antiquity. | Ancient times. |
| 2. | Obscurity. | Darkness. |
| 3. | Colonization. | The act of settling. |
| 4. | Persecution. | The state of being persecuted. |
| 5. | Hostilities. | Private enmities. |
| 6. | Depredation. | The act of plundering. |
| 7. | Impediment. | Obstruction. |
| 8. | Perseverance. | Persisting in anything undertaken. |

SENTENCES.

1. It is very interesting to visit the Antiquarian Rooms, at Worcester, and examine the book and papers and many other valuable things of *antiquity*, which are there preserved.
2. It is very pleasant to observe the sun issuing from among the clouds, after the heavens have been in *obscurity* for a number of days.
3. The *colonization* of New England was effected, through many hardships and difficulties.
4. The puritans came to this country on account of the *persecution* they received in England; and it is a fact very remarkable, that they also persecuted people in this country, who did not believe as they did in matters of religion.
5. Our forefathers were continually exposed to the *hostilities* of the Indians, and they were oftentimes so much reduced by sickness and want, that they became disheartened and resolved at one time to abandon the settlement.
6. In 1778 and '79 the Indians made several *depredations* upon the peaceful County of Tryon, in N. Y., burned the towns and killed the inhabitants or made them prisoners.
7. There have been several instances lately, of *impediments* being placed upon the rail road track, with the intention to disable the engine and injure the passengers.
8. The Puritans must have had a great deal of *perseverance*, to have passed through so many perils.

SPEECH OF REV. CHARLES BROOKS AT THE
CAPE COD ASSOCIATION.,

MR. CHAIRMAN:—In replying to your call, I have thought it might not be uninteresting to state the cause and occasion of the writing of that popular little poem on the "Landing of the Pilgrim Fathers," by Mrs. Hemans. During a short and delightful stay at her house in Dublin, Ireland, in July, 1834, I had a long conversation with her. She expressed a deep interest in the United States, and said that she had been better understood in Massachusetts than in England. She uttered with deep feeling, her profound gratitude to Prof. Norton of Cambridge, for the delicate and efficient manner in which he had commended her to the American public; for the generosity with which he had published, at his own risk, a beautiful edition of all her works, and then sent his approbation of her in that substantial and unequivocal form, which admits of no misconstruction,—*pounds sterling*. This patronage stimulated her to efforts, which otherwise she would not have made. She told me, that of the many strangers and foreigners who had visited her within the last three years, she had been most gratified with the Americans, and named one or two as signal examples. She was as truthful in her words as she was pure in her thoughts; and in thought no angel was purer.

In her conversation, she was simple and glowing, and seemed without effort to throw the prismatic colors of her own idea upon every object she touched. I was struck with her deep sense of justice when she spoke of her sister spirits, Joanna Baillie, Caroline Bowles, Mary Mitford, Letitia Landon, and Mary Howitt. She never spoke of them as rivals or competitors, but as friends and companions.

I told her, that as a member of the Old Colony Pilgrim Society, I had a right to thank her in their name, for her true and touching little poem on the landing of the Pilgrim Fathers.

"Well," said she, "should you like to know how I came to write it?"

"Certainly I should," was my reply.

She said it was thus:—"I purchased two volumes at the bookstore and brought them home, and as I laid them on the table my eyes were attracted by their envelope, which proved to be eight pages 8vo of an address delivered at Plymouth on some anniversary. There was no title, no page, and no date. The excellence of the paper and the beauty of the type first arrested my attention; but, how this stray fragment got to Ireland, I could never ascertain. I began to read, and I found it

contained an entire description of the fact of landing, and so beautiful was the painting, and so thrilling the fact, that I could not rest till I had thrown them into verse; I took off my bonnet, seized my pen, and having read and re-read the story, I caught the fire from this transatlantic torch, and began to write, and before I was aware I had finished my poem."

I then told her how much we valued the lines for their truthfulness and spirit, and how I had stood with a thousand persons in the old Pilgrim Church, at Plymouth, on "Forefathers' Day," and sung with them her exquisite hymn. At this remark a tear stole into her eye. "But," said I, "my dear madam, there are two lines of that poem which the descendants of the Pilgrims prize above the rest." "Ah! which are they?" I began to repeat—"They left unstained what there they found." "O! yes, said she, interrupting me hastily, and then reciting the next line, "Freedom to worship God." "Yes," I replied, "*Freedom to worship God.*" Then raising her voice, her eye at the same moment beaming with religious enthusiasm, she exclaimed,—"*It is the truth there which makes the poetry.*" Yes, Mr. Chairman, *it is the truth there which makes the poetry*—for, so true is that poem to the facts and feelings of the case, that this fortunate lady has connected her name forever with the shore of Plymouth and the landing of our fathers; yes, so long as the "breaking waves dash high on that stern and rock-bound coast," to chant their ocean-dirge at the grave of the Pilgrim, so long shall be joined in the sacred requiem the name of Felicia Hemans.

When about to say farewell to this charming lady, she took my hand and said,—"*When you next meet with your Pilgrim Society, present them my heartfelt thanks for their flattering partiality towards me, and tell them that I wish each one of them prosperity and happiness.*"

Unfortunately, Mr. Chairman, I have not been able to meet with our Pilgrim Society since that event, and therefore I avail myself of this opportunity, the most proper that could happen, to discharge my long-cherished, well-remembered religious trust.

The Rev. Principal Lee, in his usual inaugural address to the students of the Edinburgh University, in regard to the prosecution of their studies, said that all the eminent men of the age with whom he was personally acquainted, and who had risen to distinction, had gone to college at an early period,—Brougham at twelve, Dr. Chalmers at eleven, and Lord Campbell at eleven years and a half.

DRAWING

ON THE PRINCIPLES OF PESTALOZZI, FOR THE CULTIVATION OF
TASTE AND INVENTION.

BY PROF. WM. J. WHITAKER,

Principal of the New England School of Design, Boston, Mass.

Entered according to Act of Congress, in the year 1861, by
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FIRST COURSE.

IN our last paper we went through the simple combinations of the straight line, and now turn to a new element, which will bring with it new and extended powers of production, viz., the Angle.

Angles are formed by the junction of two lines, and are of three kinds, the quality of each being determined by the space between the opening of the lines. They are called the right, the acute, and the obtuse angles. The right angle is formed by placing one line perpendicular to another; it is also the standard of measurement for the other angles. The measure of a right angle is 90 degrees. Every circle is divided into 360 equal parts; these are called degrees, and by drawing two lines crossing each other across the centre of a circle at equal distances, we shall get four right angles. The curved line between the areas of each would be called a quadrant, or the fourth part of a circle. Every quadrant is consequently 90 degrees of measurement; and inasmuch as the right angle is the boundary of the quadrant, we call it also a measure of 90 degrees. The acute angle is any angle less than a right angle. The obtuse angle is any angle larger than a right angle. The right angle is perfectly arbitrary in its form, admitting of no modification whatever; while the other two may be of more or less capacity as required by circumstances. To draw these forms without the aid of any instruments is not quite as easy as it may seem; but a little practice will soon enable the student to make them with accuracy if persevered in. They should be drawn in various positions, so that we may know them in whatever form they may be presented to the eye. Then we should draw them in series, or, in other words, one within the other, until a proper degree of accuracy is obtained. All art, however simple in its manifestation, should be the representation of truth; neither more nor less than the truth. If this is rigidly followed, excellence will be attained, and give us the power to produce with ease and certainty whenever we may be required to execute either for our own pleasure, or that of our friends, or for the still higher purpose of

imparting instruction to the young. We must adhere firmly to natural laws, and natural principles and sound practical results will be sure to follow.

COMBINATION OF ANGLES.

In combining these figures we make use only of relative combination ; and for this reason, if we put two right angles together without allowing them to actually meet, we can give the idea of the square, and at the same time keep the elements correct. But if we let them join so as to form a perfect square, the result will be the opposite. We shall have four right angles, instead of two, thereby increasing the elements and destroying the aim of the exercise.

Order of Exercise.

1. Combine two right angles.
2. Combine four right angles.
3. Combine two acute angles.
4. Combine four acute angles.
5. Combine two obtuse angles.
6. Combine four obtuse angles.

In teaching this method to children the teacher should make liberal use of the blackboard, as the copying of their designs upon it will frequently suggest new thoughts, and produce greater variety of combinations. All irregular and misshapen forms should be rejected, and the reason given why they are so. Sometimes, however, it is good to place one or two upon the blackboard beside better ones, and endeavor to get the pupils to point out the reason why one appears so much better than the other. This is a beneficial exercise, and one that will tend to improve both teacher and children.

In large classes various capacities will be found ; some will need encouragement, some a little direction, and others will need checking when they produce numerous designs badly executed. The aim must always be to draw well, and not to draw fast, speed being readily acquired when excellence of execution is once attained.

Another kind of exercise is exceedingly useful, and tends to clear perception if made judicious use of. I will give it in the form of a lesson for the sake of being clearly understood.

Teacher. (Taking his stand at the blackboard.)—Can any one come and draw me a design on the board ?

Child—Comes and draws two right angles, perhaps irregularly.

Teacher.—Is that quite correct ?

Class.—Not quite.

Teacher.—Can any one improve it ?

Child.—Comes and draws the same idea correctly.

Teacher.—Why does the last one look better than the first ?

Class.—It is more correct.

Teacher.—Anything else ?

Class.—It is more regular and truthful.

Teacher.—Yes, and that which is most truthful will always be the most pleasing and beautiful ; that is, if we try to cultivate the spirit of truth in our life and actions. Can any one draw a different design ?

Child.—Comes and executes a second.

Teacher.—That will do very well.

This may be carried on until quite a number are produced. They should be examined and commented on by the class, then erased, and the pupils required to produce them from memory on their slates or papers, together with such new ones as they can think of.

These exercises complete the simple combinations of angles, and must be dwelt upon until some degree of accuracy is attained, but never long enough to awaken distaste. The reward of a piece of blank paper, with permission to draw more and better designs for the teacher, will oftentimes have a salutary effect on the mind, and is a privilege eagerly sought for by the pupils. The eye and the hand must be cultivated in unison, and no artificial means resorted to on any pretence whatever. It is best even to dispense with the use of the India-rubber, as its continuous use is apt to engender slovenly habits, while its disuse leads to habits of neatness and correctness of drawing.

The next exercises will be illustrated so that they may be clearly defined.

ENERGY REQUISITE FOR THE TEACHER.

ENERGY is an indispensable requisite in almost every employment : especially is it necessary for the *Teacher*. The artisan works upon brute unconscious matter, moulding the crude and shapeless mass to forms of beauty and utility. The laws by which he operates are simple and uniform. The teacher works upon mind : the image of the Eternal Spirit. How much more subtle and complex are the laws of mind than of matter. The physician has to deal with our outward frames—organized matter, instinct with life and sensibility. The laws of matter thus ennobled by contact with mind, become more complex and abstruse. But it is mind itself that is the subject for the teacher's forming hand. If energy be necessary for the artisan who

works on wood or stone, and for the physician who deals with organized forms, much more is it necessary for one who shapes the immortal mind. He must have soul enough to animate his own body, and all the bodies around him. The whole school must be pervaded by his spirit, instinct with his life. He must have vitality enough to arouse the slothful to action ; power to hold in check the heedless impulse of the thoughtless ; and decision to subdue the obstinacy of the wilful. His is the controlling energy to guide the course of all those committed to his care in the paths of knowledge. The mind that the teacher is called to mould, is often presented in the most unfavorable condition. Vicious habits cherished by parental indulgence are to be corrected, aversion to study almost insuperable is to be overcome, and wilfulness that spurns at wholesome restraint must be subdued. These things are expected of the teacher, and woe to him if he is of feeble and irresolute purpose. It was deemed a hard requirement when the tyrant demanded of his physician,

“ Canst thou not minister to a mind diseased ;
Pluck from the memory a rooted sorrow ;
Rase out the written troubles of the brain ;
And with some sweet oblivious antidote
Cleanse the stuffed bosom of that perilous stuff
Which weighs upon the heart ? ”

If the teacher is not called upon to rase out of the brain of his scholars “ written troubles ” and “ rooted sorrows,” he is expected to eradicate sloth, correct perverted activity, and by proper culture to remove all the “ perilous stuff ” with which young hearts are fraught. Baffled by the obstinate dulness of some of his pupils, he is to try again and again to arouse their minds to action. Vexed by the levity and inconstancy of others, he is never to despair. He must seek for new methods of arresting the attention of the careless. He must invent new plans to illustrate to his scholars those principles, trite and familiar to himself, but wholly unperceived by them. He must resolve to succeed ; to yield to no discouragement ; to be hindered by no obstacles. A school will not be properly governed unless the teacher has energy and decision of character ; and without proper government, there will be but little intellectual improvement. The scholars soon perceive this deficiency in a teacher. There may be any amount of blustering, an abundance of impotent threats, or a succession of cruelties inflicted by the imbecile tyrant who sits enthroned in the desk, wielding a ferule for a sceptre, but there is no government. The energetic teacher has sufficient force of character to quell all incipient rebellions ; or rather he holds so steadily the reins, that no resistance is

attempted. Calmly yet effectually he controls those under his charge. Without energy in the instructor, the whole process of teaching degenerates into a dull routine of disagreeable exercises, tiresome from their monotony, and almost useless from their lifelessness. It is a stereotyped edition of dulness. No wonder that to the buoyancy of youthful vivacity, this becomes an intolerable burden;—and mischief is continually resorted to, that the insipidity of their daily drudgery may have some seasoning. There is something contagious in energy. It arouses the slothful and inspirits the discouraged. Energetic teachers will have energetic scholars; while dulness propagates itself indefinitely. If a teacher has a bad school, it will not do for him to cast the blame on circumstances; he lacks the power to control the outward circumstances by his own resources. This characteristic of the successful teacher is not to be obtained by simply wishing for it. No one bowed down by tame pursuits and indolence, can by a single purpose break the chains that have long bound him. Yet he need not despair. A beginning of a nobler life may now commence. Each act of self-denying duty, each foolish habit broken, and each temptation overcome, shall increase the power. The oak that throws abroad its giant arms defying the tempest, receives strength and nourishment from each fibre of its branching roots, and each leaf on its boughs that trembles in the breeze. Our destiny is in our own hands. To man is committed the helm; he may steer his bark against the current, or idly float down the stream, till he is lost in oblivion. There is a miserable caricature of energy by which some impose upon themselves, in mistaking for force of character a restlessness of mind, and a showy, bustling manner of doing ordinary things. The eagle in his high flight moves round his broad circles through the sky, without fluttering his pinions;—while the summer insect, dancing in the sunbeams, makes little progress, though his quivering wings vibrate thousands of times in a second. One who has real energy is not solicitous to exhibit it by a blustering manner. Silent and unostentatious moves on the course of nature; clothing the earth with vegetation, and bringing forth its sustenance for all; spreading out the pomp of its forests, and the garniture of its fields. Thus the truly energetic act calmly; yet efficiently press on in the path of duty; delving in the rich mines of thought, and bringing from the quarry, those now rude, who, when polished by education, are to become pillars of State, or living stones in the temple of our God.

C. F. A.

Bath, (Me.), December, 1851.

[For the Massachusetts Teacher.]

MR. EDITOR :—Ought not Editors of periodicals—especially those who conduct such as are devoted to Education—to correct all inaccuracies in the language of the articles furnished by their correspondents? Otherwise, do they not endorse, and thus aid in giving currency to errors? Is it an adequate excuse for an omission to do this, that the errors are trifling? If so, I would inquire what amount of inaccuracy in language constitutes a claim to attention? Where are we to begin? Where to draw the line?

These queries are suggested by the fact that several minor mistakes in language occurred in the number of the Teacher for November. Among them are these:

In the Report of the Anniversary Exercises of the State Normal School at New Britain, Conn., is this expression: "In the evening a lecture before the Association, by Collins Stone, Professor in American Asylum for Deaf and Dumb," &c.

Is there not an *article* omitted?

Again, "Wednesday afternoon was occupied in delivery of orations," &c. Here, too, the same omission occurs.

On the same page, in an extract from Cicero, three lines from the bottom, is the expression, "He that makes any thing his chiefest good," &c. Now, notwithstanding the authority of Paul and Shakspeare and others, it seems to me we ought not to multiply such anomalies.

In the "Report of the Annual Examination of the Boston Public Schools," on page 333, second paragraph, is this expression:

"The Committee have devoted but little time to examination in Philosophy, Astronomy, Physiology, &c. until they have been satisfied," &c. Is not the wrong tense used here—the *perfect* for the *plu-perfect* in the first member of the sentence, if not in the use of the *perfect* for the *imperfect*, in the second?

On page 342, in the closing sentence of the first paragraph of the article on the Public Schools of the city of Cleveland, is this language: "When we read his reports, we could but wish," &c. Did not the writer mean, we could *not* but wish? Does his expression convey the idea he intended? Errors of this kind are very common in this and other publications. Teachers ought not to allow them to go uncorrected. We very often see the phrase "Teacher's Institutes." Does it mean Institutes for *one* teacher?

T.

As *one* of the editors of the November number alluded to in the communication which we have inserted above, we desire to

tender our humble thanks to our correspondent for his friendly criticisms. We hope to profit by them. We have no authority to speak for our colleagues, but we presume they entertain similar sentiments respecting the matter. Perhaps our correspondent himself can speak for *one* of them, and if any of the responsibility falls upon him, we are sure he is not the man to shrink from it.

We (I) desire with all our heart, to follow that good piece of advice, which Pope has so well expressed in the couplet,—

"Trust not yourself, but your defects to know,
Make use of every friend and every foe."

If any one will tell us our faults in a kind spirit, he is a *true* friend.

We are *one* of those who believe that neither an editor nor a schoolmaster has a right to be ignorant of the English language, or careless in the use of it.

A French philosopher once said of an act, "*It is worse than a crime ; it is a BLUNDER.*"

Now if he made that remark in reference to an error committed by a schoolmaster or an editor against the canons of his mother tongue, we should be more than half disposed to coincide with him in his opinion, and acquit him of the charge of extravagance. We are well aware that, tried by this high standard, we should be found almost the "*chief* of sinners ;" but for past offences we ask pardon, and promise to be more circumspect in future.

As the use of the phrase "can but wish," was a sin of commission, perpetrated by us personally, we may, perhaps, be expected to plead guilty or set up a defence. But to save time we beg leave to refer the Court to Webster's Unabridged Dictionary, and to John Horne Tooke's Diversions of Purley, p. 108, and we will abide the judgment rendered. P.

ALGEBRAIC PARADOX.

1. Let $a = x$, then,
2. multiplying by x , ($= a$), $ax = x^2$,
3. adding $-a^2$, $ax - a^2 = x^2 - a^2$,
4. factoring, $a(x-a) = (x+a)(x-a)$,
5. dividing by $x-a$, $a = x+a$,
6. substituting a for x , $a = a+a = 2a$, and
7. dividing by a , $1 = 2$.

MR. EDITOR:—Will the readers of the Teacher brook one

more article on this mooted question? Patience is a virtue, particularly in the guides of youth. The gold of California is not obtained without persevering effort. Is *truth* less valuable?

V. L., in the Teacher for June, 1851, speaking of an article in your Journal for October, 1850, says, "J. S. E. has committed a serious error in his conclusion." After a careful examination of his explanations, I am unable to discover the "error;" but, if I am not now seriously mistaken, V. L.'s *premises* are erroneous, and hence, though his reasoning may be correct, *his conclusions are not reliable*.

After stating the well-known fact that every equation has *as many and only as many* roots as there are units in its degree, V. L. asserts that "equation (2,) [$ax = x^2$,] is a *quadratic*," and hence concludes that the only *possible* values of x , in that equation, are $x = a$ and $x = 0$. Now, I claim that $ax = x^2$ is *not* an equation of the second degree, according to the proper meaning of that term. See Chase's Algebra,* p. 265. "If the exponents of the unknown quantity, *** be all *integral*, or if their *differences* be all *integral*, the *degree of the equation* is correctly expressed by the *difference between the greatest and the least of those exponents*." Or, more specifically, (Chase, p. 55,) " $x^n = 5 x^{n-1}$ " is "*actually of the first degree*." Although we take the equation, $ax = x^2$, and prepare it as V. L. does, viz., $(x-a)(x-0) = x^2 - ax = 0$, it *does not* follow that x *must* $= a$ and $x = 0$, and *nothing else*; for the equation is satisfied by making *either* factor, $(x-a)$ or $(x-0) = 0$; and because $x-a = 0$, it *does not* follow that $x-0$ *cannot* $= a$, and consequently $x = a$, or *any other quantity whatever*.

Again, taking another view: suppose we have $a=x$; no one doubts that we may multiply both members of this equation by *any* number we choose, e. g., by $x (= a)$. Now will V. L., or any other mathematician, seriously contend that a mere transposition of terms, changing of signs and factoring, can change that x , by which we multiplied, into 0? Surely, if we divide both members, $ax = x^2$, by x , obtaining $a = x$, the x by which we divide *may* be equal to *any* quantity if we *disregard the origin* of the equation, and *must* be equal to a , if we *regard the origin*, for it was *made* equal to a by hypothesis.

Once more, (for I wish to make the matter so plain that no one can misunderstand,) take a similar example:

* I trust that H. T., who has an article on the Paradox in the Teacher for July, will pardon me for referring to Chase and others. Though we would not quote the opinions of men as *authority* in the mathematics, yet attending to their reasonings not unfrequently assists us in coming to right conclusions.

Let $a = x$,
 multiplying by 3, $3a = 3x$,
 transposing, changing signs and factoring, $(x-a)(3-0) = 3x-3a = 0$,
 dividing by $x-a$, $3-0 = 0$.

Is the factor $3-0$, therefore, $= 0$!!

Please indulge me in one more example:

1. Let $a = x = 6$,
2. again, let $a = x = 6$,
3. multiply (1) by (2), $a^2 = x^2 = 6^2$,
4. multiply (1) by a or 6, and transpose, $ax = a^2 = 6^2$,
5. subtract (3) from (4), $ax - a^2 = a^2 - x^2 = 6^2 - 6^2$,
6. factor, $a(x-a) = (a+x)(a-x) = (6 \times 6)(6-6)$,
7. divide, $a = a + x = 6 + 6$,
8. substitute a for x , and unite, $a = 2a = 2 \times 6$,
9. divide by a or 6, $1 = 2 = 2$.

It is an axiom that if equals be divided by equals, the quotients will be equal; hence, I suppose, V. L. will not object to dividing the first member of equation (6) by $x-a$, the second member by $a-x$, and the third by $6-6$, since each of these divisors equals 0. Then, in equation (7), though he may be disposed to consider x , in the second member, 0, *I hardly see how he will make EITHER of the 6's, in the third member, equal to 0.*

I think V. L. (unintentionally, I doubt not,) misrepresents me. In his second paragraph he implies that I consider the values of $\frac{a(x-a)}{x-a}$ and $\frac{(x+a)(x-a)}{x-a}$, *indeterminate, not knowing their origin.* This is far from true. *Knowing their origin,* I claim that the value of the first fraction is a , and that of the second is $x + a$, i. e., $2a$, for x is expressly made equal to a .

If the above reasoning is correct, may I not refer the reader to the October number of the Teacher for an explanation of this question?

Whenever 0, as a divisor, enters a calculation, care should be used that no error creep in. Robinson's Algebra, University edition, p. 102, has some good remarks upon this subject.

If, as H. T. asserts, 0 cannot be factored for all the purposes of Algebraic analyses, how shall we discuss the General Theory of Equations?

J. S. E.

"My son, be this thy simple plan:
 Fear God, and love thy fellow-man;
 Forget not in temptation's hour,
 That sin lends sorrow double power:
 With hand and brow and bosom clear,
 Fear God, and know no other fear."

HOW DO YOU TEACH?

TEACHER, will you not pause a moment and ask yourself these important questions? How do I teach? Am I filling the minds of my pupils with words without thoughts? Am I developing their minds, and thus preparing them to learn well in the great school of life? Do my pupils understand what they are required to learn? Do I aim at giving them the instruction which will make the most show, or that which will most thoroughly discipline their minds and prepare them for the practical duties of life?

These are subjects which should engage a portion of your thoughts each day. When the labors of the school-hours are ended, and the children are wending their way homewards, sit down and reflect for a few moments upon the labors just closed, and answer in your own minds the above interrogations. Think what are the materials you are moulding—none less than the immortal mind—and that, too, when in its most plastic state.

The impressions and principles now written upon it are the most enduring. How important, then, that it should receive your most solicitous attention, that you work not with unskilful hands. Do you hear recitations by simply listening to the pupils, with book in hand, while they repeat, parrot-like, the language of the lesson? And do you regard the readiness with which they are able to do this as a proper method for determining whether they understand the subject well or not? Then you deserve not the name of Teacher. Any little child that can read could teach as well as that. Such a practice may fill the memory with words, but will not develop the mind, nor impart to it thoughts and principles. It is not doing your duty. It is not teaching.

Pupils should be required to think for themselves, and to tell what they know of each subject under consideration; then, when they do not comprehend it, let it be explained to them.

It may be well to sometimes call on a pupil, during a recitation, to act the part of a teacher, as lecturer, and explain the lesson to the class as if it had not been learned.

Such an exercise will prove highly beneficial, for thus teaching others improves the teacher as well as the taught. It will tend to impart confidence and self-command, while it greatly improves the pupil in communicating intelligibly to others.

But the teacher must be the instructor, and do most of the questioning of his pupils. In doing this, leading questions should be avoided, such as may be answered by yes, or no, or as are so explicit as to indicate what the answer should be.—
The Student.

FIRST SEMIANNUAL REPORT of the Superintendent of Public Schools, of the city of Boston, 1851.

THIS report is from the pen of Nathan Bishop, Esq., who, previous to his election to the high office which he now fills, had held a similar office in the city of Providence, for nearly twelve years.

It is an elaborate production, and, in our estimation, one of great practical value. We cordially commend it to the attention of School Committees and Teachers. Believing, as we do, that the recommendations which it contains are calculated to advance the interests of our schools, we sincerely hope they will be adopted by the school committee.

The main topics of discussion are school-houses, in reference to proper size, separate rooms, and warming and ventilating; text books; and the qualifications of teachers. Our present limits forbid an extended abstract, but we hope to lay its pages under contribution for a future number.

Respecting the size of school-houses, he says:—"Our largest school-houses, such as the Bigelow, the Hancock, and the Quincy, will accommodate without inconvenience about eight hundred pupils, and thus afford opportunities for making a classification of the scholars which will secure to each one the benefits of having about *one half* of his teacher's time devoted to his section, and if he is as attentive as all scholars ought to be, this is about the same as having this amount of time given to his personal improvement. These may then be regarded as school-houses of the proper size for a dense population; because the number of scholars required to enable the teachers to make the best possible classification, can come to each house without any practical inconvenience arising from the distance. The importance of having schools large enough to classify the pupils to the best advantage cannot easily be overstated."

He then proceeds to show that they are *cheaper*, and concludes that the larger the school (not exceeding eight hundred in one house) the greater the facilities for classification and successful teaching, and the less the annual expense per scholar; and on the other hand the smaller the school, the less the facilities for classification and instruction, and the greater the annual expense for each scholar.

He is decidedly in favor of *separate rooms*. He says:

"For several years, experiments testing the superiority of separate rooms have been going on in this and other cities, and the opinions of those who have taught, both in large halls with recitation rooms attached, and also in rooms just large enough

for one division containing fifty-five or sixty pupils, are, almost without exception, in favor of the separate rooms."

We hope the day is not distant when Boston will have an institution where young ladies may qualify themselves to become teachers, better than it is possible for them to do in our best grammar schools. On this point, the Superintendent says,

"Every year between forty and fifty well-qualified female teachers will be wanted to fill the vacancies which are occurring in the places of teachers. If these places are filled by persons of very high qualifications, the schools will be greatly improved without any increased expense. The teachers now in the schools are generally deserving high commendation for their 'pursuit of knowledge under difficulties,' and for making acquisitions beyond the course which the grammar schools afford. If, however, the standard of the qualifications of these teachers could be at once raised *one-fourth*, the character of the schools and the scholarship of the pupils would very soon be raised in the same proportion.

"For the purpose of accomplishing this object in the most direct and feasible way, I recommend the establishment of a Normal School as a part of the Boston System of Public Instruction. It is due to the inhabitants of this city to establish an Institution in which such of their daughters as have completed with distinguished success the course of studies in the grammar schools, may, if they are desirous of teaching, qualify themselves in the best manner for this important employment. Educated in our schools, they would be familiar with our modes of teaching and management, and would lend a cordial coöperation in carrying into effect all the provisions of the School System. It is believed that the amount of money required for the support of such a school cannot be expended in any other manner which will render so much service to the schools."

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FIFTEENTH ANNUAL REPORT of the Secretary of the Board of Education.—1852.

THIS is the third report to the Board from the pen of Dr. Sears, the present Secretary.

In his first, the *appointment of teachers* was the most prominent topic of discussion. The great and manifold evils resulting from the policy of placing the appointing power in the hands of one Committee, and the approbating power in the hands of another body, are placed in their true light.

In last year's report, the superior advantages of a *proper*

gradation of schools were set forth with great force and clearness. It seems hardly possible for a person of unprejudiced mind to read it without becoming a convert to the graded system.

Above forty pages of the present report are devoted to the subject of *Instruction*. Some of the most injurious mistakes and errors in teaching are considered in connection with their remedies, and a general view is presented, of the course of study, and method of instruction, adapted to the lower schools.

The views which the Secretary has embodied in this paper, are by no means the "hasty product of a day," a mere conglomeration of crude, undigested notions and impressions. They are the well-ripened fruit of long experience, careful study, and mature reflection.

This production will, in our opinion, not only sustain, but materially advance the high reputation as a sound educator which the learned writer has heretofore so justly enjoyed.

The subject naturally addresses itself to teachers, and no intelligent one can read it without profit. It will bear to be *studied*. We can take it with us to the schoolroom, and take counsel of it in the practical business of teaching.

It is not a re-hash of other reports, but a fresh contribution,—a new development rather than a compilation.

For one, we welcome it with unfeigned cordiality. It rises like a new star above our horizon, and ascends to its place in the firmament to illumine our path. It is not a local light, calculated only for a particular meridian. It shines for all. Like the sunlight, it is adapted to every latitude and longitude on the globe.

We regard it as one of the self-evident propositions that every individual of the 8,694 teachers in this State ought to be put into possession of it. We abstain from making any extracts from it because we propose to lay it entire before the readers of the "Teacher."

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EDUCATION IN MAINE.

AN ACT to Provide for the Education of Youth, and the Fifth Report of the Board of Education of Maine, with the Report of their Secretary, Hon. E. M. Thurston,—1851.

It is understood that the compilation of this Code of Public Instruction was mainly the work of the efficient Secretary of the Board. Whatever may be the actual state of Common Schools in Maine, the provisions of her School Laws, as they

now stand, are, in general, wise and salutary. The following is the provision for the choice of Superintendents or Supervisors:

"Any town containing two thousand inhabitants or more, instead of the Committee named in the preceding section, may choose some competent individual, an inhabitant of said town, who shall be constituted a Supervisor of the public schools of the town; the same to be duly sworn, and to have all the powers, privileges and duties, and in respect of all the provisions of this act, to stand in the place of a Superintending School Committee, as by law provided."

The Code adopts the substance of the Massachusetts Act in relation to truants and children without any regular and lawful occupation, and growing up in ignorance. We sincerely hope, however, that the municipal authorities of Maine will not imitate the laxity of the "powers that be" in Boston, in executing the law. It is an excellent remedy for the evil, and its faithful application would effect a speedy cure.

Respecting the erection of school-houses the law provides that:

"Whenever any school district shall vote to erect or re-construct a school-house, the plan of the same shall first be submitted to the Superintending School Committee of the town for their approval."

It provides for the punishment of "any person, whether he be scholar or not, who shall wilfully interrupt or disturb the teacher of pupils by loud speaking, rude or indecent behavior, signs or gestures."

It appears from the Secretary's excellent Report, that the Superintending School Committees hold annual County Conventions. Such meetings, as far as we know, are peculiar to Maine. He says:—

"A county convention of School Committees was held in each county during the past autumn. I had the pleasure of being present in every instance, and endeavored to add something to the profit and interest of the occasion.

The Committees assembled at each of these Conventions, in addition to the discharge of their official duty in electing a member of the Board of Education, usually consulted together in reference to the proper discharge of the various and responsible duties required of them by the laws of the State.

And whenever a difference of opinion prevailed in reference to any of the topics presented for discussion, there was a manifest disposition to compare views, for the sole purpose of eliciting truth. An increasing interest in behalf of public instruction is every year becoming more apparent among School Committees in various parts of the State. I regard these conventions as a prominent motive power in producing so desirable a result."

The Secretary has inserted in his Report an extended article on the subject of School-houses. This he has been induced to do in consequence of the refusal of the Legislature to supply the town with Mr. Barnard's excellent standard work on School Architecture. On what ground the Legislature of a State, where thousands of the school-houses need great improvements, could refuse so reasonable a request, we are unable to see.

Mr. Thurston has done a good thing in laying before the people of Maine so much valuable information on this department of school economy.

From the Report of the Board we quote and fully endorse the following remarks on Reform Schools.

"Perhaps no institution of recent establishment, marks more strongly the character of the age, than Reform Schools. They are additional barriers in the downward course of youthful folly and vice, to check and to save. When parents prove unnatural, when schools are neglected, and school officers negligent; when the young offender has taken his first steps in crime,—it is indeed a hopeful thing that the Reform School is open to receive him, before hardened by guilt and shameless from punishment. Although the Reform School may not be intimately connected with our common schools, it is a result of the awakened interest in education, and has its foundation in the most enlarged benevolence. We regard it as a powerful auxiliary in the cause of education, and we hope that the work of its establishment in our State, so auspiciously commenced, may be carried on and completed."

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"The education of our children is never out of my mind. Train them to virtue, habituate them to industry, activity and spirit. Make them consider every vice as shameful and unmanly. Fire them with ambition to be useful. Make them disdain to be destitute of any useful knowledge."—*John Adams to his Wife.*

The next Annual Meeting of the American Institute of Instruction, will be held at Wilmington, in the state of Delaware, provided the usual reduction of fares can be obtained.